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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/557,234	04/24/00	O DONNELL P	PODON.001A

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EXAMINER	
VALENTI,A	

ART UNIT	PAPER NUMBER
3643	3

DATE MAILED: 06/19/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary	Application No.	Applicant(s)	
	09/557,234	O DONNELL, PATRICK J.	
	Examiner	Art Unit	
	Andrea M. Valenti	3643	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 April 2000* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-28* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-28* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claims _____ are subject to restriction and/or election requirement.

PETER M. POON
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600

pmp

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *24 April 2000* is/are objected to by the Examiner.

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

15) ☒ Notice of References Cited (PTO-892)
16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *1* .
18) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
19) ☐ Notice of Informal Patent Application (PTO-152)
20) ☐ Other:

DETAILED ACTION

Drawings

The drawings are objected to because:

Fig. 2, Element number '22' should be number --20--

Correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> **A person shall be entitled to a patent unless –**
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-8 and 16-18 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,573,187 to Ronnie E. Proctor.

Regarding Claim 1, Proctor teaches a hand held spray apparatus with a substantially rigid tubular handle portion adapted to be connected to a source of pressurized water, a substantially straight proximal section, a substantially straight distal section, and a bend point between the proximal section and the distal section (Proctor Abstract and Fig.2 Element #22,12, 18, 36, and 32).

Proctor teaches that the nozzle portion is located at the distal end of the handle portion and the nozzle is adapted to direct a flow of pressurized water to create a substantially planar wall of water directed outwardly about the circumference of the nozzle. The wall of water being substantially perpendicular to a longitudinal axis of the

nozzle portion (Proctor Fig.2 Element #20 and 36, Fig.1 wall of water, and Col.2 line 15-16).

Proctor discloses that the rotation axis is defined parallel to the handle distal section and through a point adjacent a proximal end of the handle portion. Rotating the apparatus about the rotation axis when the handle distal section is in a generally horizontal attitude changes the elevation of the distal section without changing the attitude (Proctor Fig.2 Element #12, 18 and 36).

Regarding Claim 2, Proctor teaches that the nozzle portion is adapted to create a second substantially planar wall of water, the second wall of water being spaced apart from the substantially parallel first wall of water (Proctor Fig. 1 Element #38 and water spray lines).

Regarding Claim 3, Proctor teaches that the nozzle portion has a cross sectional profile not substantially larger than a profile of the handle (Proctor Fig. 2 Element #20 and 12).

Regarding Claim 4, Proctor teaches a hand held spray apparatus with a substantially rigid handle portion, an elongated substantially rigid body portion communicating with the handle portion, and a nozzle portion at a generally distal end of the body portion (Proctor Abstract and Fig. 2 Element #12, 18, and 20). Furthermore, Proctor teaches that the nozzle portion is adapted to be connected to a source of pressurized water and to direct the pressurized water in a flow directed substantially outwardly from the nozzle portion and around at least half of the circumference of the nozzle portion (Proctor Col. 3 lines 39-41, Col. 2 line 15-16 and Fig.1 water spray lines).

Regarding Claims 5, 6, 9, and 10, Proctor discloses that the nozzle portion is adapted to create a substantially uniform wall of pressurized water, the water wall laying in a plane substantially perpendicular to a longitudinal axis of the body portion and completely encircling the body portion. Proctor also discloses that the water wall is substantially contiguous about the nozzle portion and at least part of the pressurized water flow is directed outwardly from the nozzle at an acute angle relative to a longitudinal axis of the nozzle (Proctor Col. 3 lines 39-41, Col. 2 line 15-16 and Fig.1 water spray lines).

Regarding Claims 7 and 8, Proctor teaches that the nozzle portion is adapted to create a second wall of pressurized water, the second wall being spaced from and substantially parallel to the first wall, and the walls of water are spaced between about 1" to 6" apart (Proctor Fig. 1 Element #20, 38 and the two planar walls of spray lines).

Regarding Claims 16 and 17, Proctor teaches that the body portion is substantially straight (Fig. 2 Element #36), the handle portion (Fig. 2 Element #18, 16, and 12) comprises a bend point, and the handle portion and the body portion are integrally formed (Fig. 2 Element #32).

Regarding Claim 18, Proctor teaches that the handle portion and the body portion comprise a plurality of modules (Fig. 2 Element #12, 16, 18, 36, 20, Col. 3 line 50-51, and Col. 4 line 1-4).

Claim 19 is rejected under 35 U.S.C. 102(b) as being anticipated by Kimbrew-Walter Roses "Jet-All" sprayer.

Regarding Claim 19, "Jet-All" teaches the method of a hand held spraying apparatus in which the nozzle is placed adjacent an underside of a plant leaf. The apparatus comprises a handle, an elongated body portion, a nozzle portion at a distal end of the body portion, and the nozzle portion adapted to direct water flow outwardly from the circumference of the nozzle portion. The "Jet-All" method includes providing a source of water under pressure, placing the spraying apparatus into communication with the source of water under pressure, and advancing and retracting the apparatus so that a flow of water impacts the undersurface of the leaf (see attached brochure page).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 12-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,573,187 to Ronnie E. Proctor in view of U.S. Patent No. 3,737,105 to Arnold et al.

Regarding Claim 12, Proctor teaches that the nozzle portion comprises a tube and an end plug, the end plug having a plug body and a dispersing plate, and at least a portion of the plug body lying within the tube (Proctor Fig. 3 Element #40, 36, and 20 and Col. 3 line 40-41). Proctor is silent on a space defined between the dispersing plate and a distal end of the tube so that water flowing through the nozzle portion flows

between the tube and the plug body and through the space. However, Arnold et al teaches a spray nozzle with an end plug and a dispersing plate creating a space between the dispersing plate and a distal end of the tube, so that water flowing through the nozzle portion flows between the tube and the plug body and through the space (Arnold et al Fig. 1 Element #45, 46, 40, 35 and 21). It would have been obvious to one of ordinary skill in the art to modify Proctor with the teachings of Arnold et al, since the nozzles are merely alternate equivalent devices designed to perform the same intended function of dispersing a wall of water and maybe selected to satisfy certain manufacturing or economic design parameters.

Regarding Claim 13, Proctor as modified by Arnold et al discloses that the nozzle portion additionally comprises a second tube (Arnold et al Fig. 1 Element #19) and an intermediate plug attached to a proximal end of the first tube (Arnold et al Fig. 1 Element #25), the intermediate plug having a substantially hollow plug body and a dispersing plate (Arnold et al Fig. 1 Element # 22 and 28), at least a portion of the plug body lying within the second tube, and a space is defined between the dispersing plate and a distal end of the second tube so that a portion of water flowing through the nozzle portion flows between the second tube and the plug body and through the space (Arnold et al Fig. 1 Element #30), and a portion of water flowing through the nozzle portion flows through the hollow plug body and into the first tube (Arnold et al Fig. 1 Element #45 and 46).

Regarding Claim 14, Proctor as modified by Arnold et al discloses that the plug body includes ribs extending therefrom, and the plug body is attached to the tube by the ribs (Arnold et al Fig. 1 bottom portion of Element #21 above Element #15).

Regarding Claim 15, Proctor as modified by Arnold et al discloses that the dispersing plate comprises spacers extending therefrom and the spacers are adapted to contact the end of the tube so that the dispersing plate is spaced at a fixed distance from the end of the tube (Arnold et al Col. 2 lines 34-44).

Claims 20-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kimbrew-Walter Roses "Jet-All" sprayer in view of U.S. Patent No. 5,573,187 to Ronnie E. Proctor

Regarding Claim 20, "Jet-All" is silent on the elongated body portion being substantially straight. However, Proctor teaches a hand held spraying apparatus with an elongated body portion being substantially straight (Proctor Fig. 2 Element #36). It would have been obvious to one of ordinary skill in the art to modify the method of "Jet-All" with the apparatus of Proctor since they are merely alternate equivalent devices designed to perform the same intended function of spraying water to clean a surface area. Proctor's device presents a more efficient and extensive treatment coverage application.

Regarding Claim 21, Proctor teaches that the nozzle is adapted to direct flow of water in a substantially vertical plane (Proctor Fig. 1 vertical wall spray lines).

Regarding Claim 22, Proctor teaches that at least one of the substantially vertical planes is substantially perpendicular to the nozzle portion and comprising the step of holding the elongated body in a substantially horizontal attitude (Proctor Fig. 1 Element #20 and water spray lines).

Regarding Claim 23, Proctor teaches that the handle includes a bend point and inherently teaches the step of adjusting the elevation of the body portion by rotating the handle about a proximal end of the handle (Proctor Fig. 2 Element #32 and rotating point at Element #22).

Regarding Claim 24, "Jet-All" as modified by Proctor discloses advancing and retracting the apparatus into and out of the plant at a plurality of locations, so that water directed by the nozzle simultaneously impacts the top side of a first plant leaf along at least a portion of its length and the underside of a second plant leaf along at least a portion of its length (Proctor Fig. 1 water spray lines).

Regarding Claim 25, Proctor discloses that the nozzle is adapted to create a substantially planar contiguous wall of water around the circumference of the nozzle (Proctor Fig. 1 water spray lines, Element #38 and 20, Col. 3 line 40-41).

Regarding Claim 26, Proctor discloses that the nozzle is adapted to create two or more substantially planar and contiguous walls of water around the circumference of the nozzle, the walls of water being spaced apart from each other (Proctor Fig. 1 water spray lines, Element #38 and 20).

Regarding Claims 27 and 28, "Jet-All" as modified by Proctor discloses advancing and retracting the nozzle between leaves of the plant at a plurality of

locations, so that the portions of the wall of water simultaneously impact undersides of leaves generally above the nozzle, top sides of leaves generally below the nozzle, and any matter that may be between the leaves of the plant.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent No. 5,009,369, Switzerland Patent No. 259242, and U.S. Patent No. 1,674,480 teach a spray apparatus in which the nozzle portion comprises a tube and an end plug, the end plug having a plug body and a dispersing plate, at least a portion of the plug body lying within the tube, and a space defined between the dispersing plate and a distal end of the tube so that water flowing through the nozzle portion flows between the tube and the plug body and through the space.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrea M. Valenti whose telephone number is 703-305-3010. The examiner can normally be reached on 7:30am-5pm M-F; Alternating Fridays Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter M. Poon can be reached on 703-308-2574. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-4195 for regular communications and 703-305-0285 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-4357.

AMV
June 15, 2001

PETER M. POON
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600